

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,336,648 B1

APPLICATION NO.: 09/696,674

ISSUE DATE : February 26, 2008

INVENTOR(S) : Yasushi SASAGAWA

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 15, line 32: "a part or" should be changed to --a port or--; line 47, "the ogress" should be changed to --the egress--.

Column 16, line 23: "group or an" should be changed to --group of an--; line 35, "of the CR-LOP." should be changed to --of the CR-LDP.

Column 17, line 1: "RSVP protocol Resource" should be changed to --RSVP protocol (Resource--.

### MAILING ADDRESS OF SENDER (Please do not use customer number below):

Katten Muchin Rosenman, LLP.  
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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor	:	Yasushi SASAGAWA
U. S. Patent No.	:	7,336,648 B1
Serial No.	:	09/696,674
Issued	:	February 26, 2008
For	:	LABEL SWITCHING SYSTEM

March 27, 2009

Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR A CERTIFICATE OF CORRECTION**

SIR:

We request a Certificate of Correction under 35 U.S.C. §254, to correct the following typographical errors below:

Column 15, line 32, which was incorrectly listed as “**a part or**” Please change the same to read: --**a port or--**; line 47, which was incorrectly listed as “**the ogress**” Please change the same to read: --**the egress--**.

Column 16, line 23, which was incorrectly listed as “**group or an**” Please change the same to read: --**group of an--**; line 35, which was incorrectly listed as “**of the CR-LOP.**” Please change the same to read: --**of the CR-LDP.**

Column 17, line 1, which was incorrectly listed as “**RSVP protocol Resource**” Please change the same to read: --**RSVP protocol (Resource--**.

Attached, please find a copy of the pages from the Patent with column 15, 16 and 17, and a copy of the Response to Office Action March 21, 2007, which was filed on July 23, 2007 where the claims were amended.

**This was due to an error made by the USPTO.**

Any fee due as a result of this paper, may be charged to Deposit account No. 50-1290.

Respectfully submitted,

/Pedro C. Fernandez/

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Docket No.: FUJY 17.914(100794-11533)

switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

- a step of specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)); and
  - a step of specifying a port or a port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate ER-HOP-TLV field in ER-TLVs in Label Request Message of the CR-LDP.
2. An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:
- a step of specifying the port or the port group of the egress node and the port or the port group of the relay node by adding an intra-system port number or an intra-system port group number in an ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)).
3. An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:
- a step of explicating a port through which data should pass per system and specifying a port or a port group of the egress node by use of a resource class TLV field with ER-TLV in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)) being used as ER-HOP-TLV.
4. An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:
- a step of specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final Subject-object field in Explicit Route Objects in a path message of RSVP protocol (Resource reSerVation Protocol) extended for setting a label switched path in MPLS protocol (Multi Protocol Label Switching); and
  - a step of specifying a port or port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate Subject-object field in Explicit Route Objects in the path message of the RSVP protocol.
5. An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:
- a step of specifying a port or a port group of the egress node and a port or a port group of the relay node by adding an intra-system port number or an intra-system

port group number in a Subject-object field in Explicit Route Objects in the path message of RSVP protocol (Resource reSerVation Protocol) extended for setting the label switched path in MPLS protocol (Multi Protocol Label Switching).

6. An explicit routing method in a label switching system, comprising:

- a step of specifying an MPLS (Multi Protocol Label Switching) explicit route by adding, to an MPLS-to-IP forwarding function of a port group in one specified egress node, a communication function with an MPLS-to-IP forwarding function of a port group in an intra-system other egress node, and a forwarding function to the port group in the intra-system other egress node; and

wherein the one specified egress node and the intra-system other egress node are in a label switching router connected to an MPLS network and a non-MPLS network.

7. A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

- a module for specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)); and

- a module for specifying a port or a port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate ER-HOP-TLV field in ER-TLVs in Label Request Message of the CR-LDP.

8. A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

- a module for specifying the port or the port group of the egress node and the port or the port group of the relay node by adding an intra-system port number or an intra-system port group number in a ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)).

9. A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

- a module for explicating a port through which data should pass per system and specifying a port or a port group of the egress node by use of a resource class TLV field with ER-TLV in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)) being used as ER-HOP-TLV.

10. A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

- a module for specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final Subject-object field in Explicit Route Objects in a path message

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of RSVP protocol (Resource reSerVation Protocol) extended for setting a label switched path in MPLS protocol (Multi Protocol Label Switching); and  
 a module for specifying a port or port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate Subject-object field in Explicit Route Objects in the path message of the RSVP protocol.

11. A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

a module for specifying a port or a port group of the egress node and a port or a port group of the relay node by adding an intra-system port number or an intra-system port group number in an Subject-object field in Explicit Route Objects in the path message of RSVP protocol

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(Resource reSerVation Protocol) extended for setting the label switched path in MPLS protocol.

12. A packet router in a label switching system, comprising:

a module for specifying an MPLS (Multi Protocol Label Switching) explicit route by adding, to an MPLS-to-IP forwarding function of a port group in one specified egress node, a communication function with an MPLS-to-IP forwarding function of a port group in an intra-system other egress node, and a forwarding function to the port group in the intra-system other egress node; and

wherein the one specified egress node and the intra-system other egress node are in a label switching router connected to an MPLS network and a non-MPLS network.

\* \* \* \* \*

Certification Of Facsimile Transmission

I hereby certify that this paper is being facsimile transmitted to (571) 273-8300 at the U.S. Patent and Trademark Office on July 23, 2007.

By: Christina Colocotronis  
Christina Colocotronis

**Attorney Docket No.: FUJY 17.914 (100794-11533)**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor: YASUSHI SASAGAWA  
Confirmation No.: 4572  
Serial No.: 09/696,674  
Filed: October 25, 2000  
Title: LABEL SWITCHING SYSTEM  
Examiner: BLANCHE WONG  
Group Art Unit: 2616

July 23, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**A M E N D M E N T**

Madam:

Applicant hereby petitions for a one-month extension of time, a petition pursuant to 37 C.F.R. 1.136(a) and authorization to charge the requisite fee being enclosed.

In response to the Final Office Action dated March 21, 2007, please amend the subject application as follows:

AMENDMENTS TO THE CLAIMS:

1. **(Cancelled):**

2. **(Withdrawn):** An explicit routing method in a label switching system, comprising:

a step of flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the ports are divided, and an IP address allocated to the port group; and

a step of managing the topology data flooded from other system and, when setting a label switched path on the basis of an explicit route specified, explicitly specifying a port or a port group of an egress node, and a port or a port group of a relay node on the basis of the received topology data.

3. **(Withdrawn):** An explicit routing method in a label switching system, comprising:

a step of flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the ports are divided, and an IP address allocated to the port group.

4. **(Withdrawn):** An explicit routing method in a label switching system, comprising:

a step of flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the ports are divided, and an IP address allocated to the port group by use of Opaque LSA of OSPF protocol.

5. **(Cancelled)**



**6. (Previously Presented):** An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

a step of specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)); and

a step of specifying a port or a port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate ER-HOP-TLV field in ER-TLVs in Label Request Message of the CR-LDP.

**7. (Previously Presented):** An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

a step of specifying the port or the port group of the egress node and the port or the port group of the relay node by adding an intra-system port number or an intra-system port group number in an ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)).

**8. (Previously Presented):** An explicit routing method in a label switching system,

① → including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

a step of explicating a port through which data should pass per system and specifying a port or a port group of the egress node by use of a resource class TLV field with ER-TLV in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)) being used as ER-HOP-TLV.

9. **(Previously Presented):** An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

② → a step of specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final Subject-object field in Explicit Route Objects in a path message of RSVP protocol (Resource reSerVation Protocol) extended for setting a label switched path in MPLS protocol (Multi Protocol Label Switching); and

a step of specifying a port or port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate Subject-object field in Explicit Route Objects in the path message of the RSVP protocol.

10. **(Previously Presented):** An explicit routing method in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an

explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the explicit routing method comprising:

a step of specifying a port or a port group of the egress node and a port or a port group of the relay node by adding an intra-system port number or an intra-system port group number in a Subject-object field in Explicit Route Objects in the path message of RSVP protocol (Resource reSerVation Protocol) extended for setting the label switched path in MPLS protocol (Multi Protocol Label Switching).

**11. (Previously Presented):** An explicit routing method in a label switching system, comprising:

a step of specifying an MPLS (Multi Protocol Label Switching) explicit route by adding, to an MPLS-to-IP forwarding function of a port group in one specified egress node, a communication function with an MPLS-to-IP forwarding function of a port group in an intra-system other egress node, and a forwarding function to the port group in the intra-system other egress node; and

wherein the one specified egress node and the intra-system other egress node are in a label switching router connected to an MPLS network and a non-MPLS network.

**12. (Cancelled):**

**13.(Withdrawn):** A packet router in a label switching system, comprising:

a module for flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the

ports are divided, and an IP address allocated to the port group; and

a module for managing the topology data flooded from other system and, when setting a label switched path on the basis of an explicit route specified, explicitly specifying a port or a port group of an egress node, and a port or a port group of a relay node on the basis of the received topology data.

**14. (Withdrawn):** A packet router in a label switching system, comprising:

a module for flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the ports are divided, and an IP address allocated to the port group.

**15. (Withdrawn):** A packet router in a label switching system, comprising:

a module for flooding, as topology data, a set of an intra-system port and an IP address allocated to the port, or a set of a port group among a plurality of groups into which the ports are divided, and an IP address allocated to the port group by use of Opaque LSA of OSPF protocol.

**16. (Cancelled)**

**17. (Previously Presented):** A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

③ →

a module for specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)); and

a module for specifying a port or a port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate ER-HOP-TLV field in ER-TLVs in Label Request Message of the CR-LDP.

④ → 18. **(Previously Presented):** A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

a module for specifying the port or the port group of the egress node and the port or the port group of the relay node by adding an intra-system port number or an intra-system port group number in a ER-HOP-TLV field in ER-TLVs in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)).

19. **(Previously Presented):** A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

a module for explicating a port through which data should pass per system and specifying a port or a port group of the egress node by use of a resource class TLV field with

ER-TLV in Label Request Message of CR-LDP (Constraint-Based LSP setup using LDP (Label Distribution Protocol)) being used as ER-HOP-TLV.

20. **(Previously Presented):** A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

a module for specifying a port or a port group of the egress node by setting an IP address corresponding to the port or the port group of the egress node in a final Subject-object field in Explicit Route Objects in a path message of RSVP protocol (Resource reSerVation Protocol) extended for setting a label switched path in MPLS protocol (Multi Protocol Label Switching); and

a module for specifying a port or port group of the relay node by setting an IP address corresponding to the port or the port group of the relay node in an intermediate Subject-object field in Explicit Route Objects in the path message of the RSVP protocol.

21. **(Previously Presented):** A packet router in a label switching system, including explicitly specifying, when setting a label switched path (LSP) on the basis of an explicit route specified, a port or a port group of an egress node, and a port or a port group of a relay node, the packet router comprising:

a module for specifying a port or a port group of the egress node and a port or a port group of the relay node by adding an intra-system port number or an intra-system port group number in an Subject-object field in Explicit Route Objects in the path message of RSVP

protocol (Resource reSerVation Protocol) extended for setting the label switched path in MPLS protocol.

**22. (Previously Presented):** A packet router in a label switching system, comprising:

a module for specifying an MPLS (Multi Protocol Label Switching) explicit route by adding, to an MPLS-to-IP forwarding function of a port group in one specified egress node, a communication function with an MPLS-to-IP forwarding function of a port group in an intra-system other egress node, and a forwarding function to the port group in the intra-system other egress node; and

wherein the one specified egress node and the intra-system other egress node are in a label switching router connected to an MPLS network and a non-MPLS network.

## REMARKS

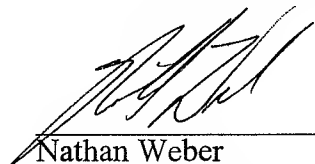
Claims 6-11 and 17-22 are pending in the application, with claims 1, and 12 cancelled herein. No new matter is added by these amendments. The Examiner is thanked for indicating that claims 6-11 and 17-22 contain allowable subject matter or are allowed.

In the final office action Claims 1 and 12 are rejected under 35 U.S.C. §102(e) as being anticipated by Applicants Admitted Prior Art (AAPA) as shown in Fig. 3. These claims are now cancelled herein rendering the rejection moot.

Accordingly, in view of the amendments to the claims and the remarks set forth above, this application, specifically claims 6-11 and 17-22, is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

  
\_\_\_\_\_  
Nathan Weber  
Reg. No. 50,958

CUSTOMER NUMBER 026304  
Telephone: (212) 940-8564  
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Docket No.: FUJY 17.914 (100794-11533)  
NDW:fd